



COLUMBIA PULP

**Washington Transportation Commission**



# Why We Are Here

*What activity produced one of the highest levels of air pollution in Washington state?*



# About Columbia Pulp

- *Using innovative and proprietary technology, Columbia Pulp's next generation pulp mill is the first in North America to turn 250,000 TPY of residual wheat straw into cellulose fiber.*
- *North American based production with an established annual feedstock addresses security of supply issues.*
- *Produces 140,000 TPY of straw pulp to complement wood fiber for the manufacture of tissue, towel, paper, molded and packaging products.*
- *Yields 75,000 dry tons of bio-polymers annually for industrial and agricultural applications.*
- *Creates a solid fiber stream for compost, animal bedding, heating pellets and other uses.*



# Columbia Pulp Plant

## **Strategically located in Southeastern Washington State**

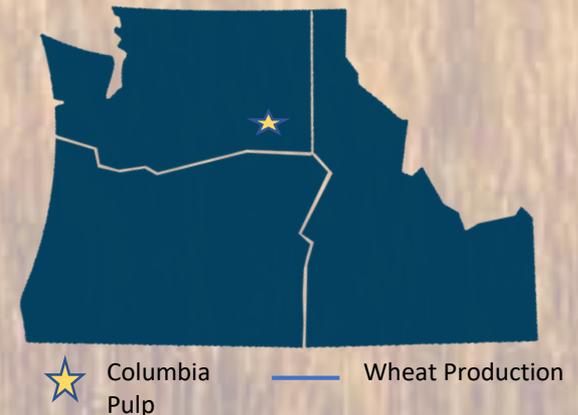
- *One of the leading wheat growing regions in the world*
- *Year-round straw availability and delivery*
- *450-acre site at Lyon's Ferry, Washington*
- *Mainline rail and interstate highway access*
- *Natural gas pipeline runs through facility*

## **Straw sourced & stored locally**

- *Over 4 million tons of straw per year produced within a 75-mile radius of site*
- *Contracted feed straw supply with Columbia Straw*

## **State-of-the-art resource efficient process**

- *Lower energy, chemicals and water per ton than traditional pulp mills*
- *Sulfur free process - no odor*
- *Unbleached & TCF*
- *Closed loop process*



# Environmental Impact

- *Replacing 140,000 tons of conventional pulp annually, using Columbia Pulp's products, will result in 133,000 metric tons of CO2 carbon savings per year. This is equivalent to:*
  - *The CO2 absorbed by approximately 5.8 million trees each year*
  - *The CO2 emitted by approximately 40,000 cars, each driving 10,000 miles per year*
- *Utilizing wheat straw as a feedstock:*
  - *Eliminates the need to burn 250,000 tons of straw waste (approximately 100,000 acres)*
  - *Reduces approximately 45,000 tons of air emissions*



# Target Markets - Pulp

## Tissue & Towel

- *Low coarseness*
- *Higher tensile strength than NBSK*
- *Can provide bulk on TAD machines*



## Packaging – Corrugated/Folding Carton

- *Cleaner & brighter than OCC*
- *FDA direct food contact*



## Printing & Specialty Paper

- *Increased smoothness*
- *Increased opacity*
- *High tensile & tear strength*



## Molded Fiber

- *Reduces food packaging waste*
- *Stiff product with smooth surface*
- *FDA direct food contact*



# Target Markets - Bio-Polymers

## Deicer additive CBP-Duration™

- Corrosion inhibitor
- Reduces Ice bond to pavement
- Sticker prolongs performance and reduce waste

## Dust suppression CBP-SurTac™

- Soil stabilizer
- Reduces Dust
- Corrosion Inhibitor
- Non-Toxic chloride alternative

## Crop & Soil Health CBP-Harvest™

- Natural organic matter and micronutrient source
- Enhances Nitrogen Use Efficiency
- Sticker and drift inhibitor
- Improves soil structure and water use efficiency

## Animal Nutrition CBP-THRIVE™

- Natural source of essential minerals, crude protein, & carbohydrates
- Digestive aid increases nutrient uptake
- Feed binder improves pellet & granule quality

## Cement Additive CBP-CA2020



# Target Markets - Solid Fiber

## Compost – Residential and Agricultural

- High organic content
- Aesthetic appeal
- Moisture holding capacity
- Nutrient recycling

## Animal bedding and Arena Soil Conditioner

- High moisture holding capacity
- Dust control
- Ammonia and nitrate retention
- Odor control
- Biodegradable and septic safe

## Fuel pellets

- No foreign objects
- Low ash content
- Lower price point

## Desiccant

- High moisture holding capacity
- Bulk fluff, bagged fluff, pellets



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## Challenges/Issues



- *Seasonal road traffic-harvest related*
- *Infrastructure*
  - *Road condition*
  - *Bridges-Lyons Ferry capability*
- *Weather impact*
- *Employee commuting*